

tained. Besides serving as an immense reservoir for storing water to reclaim 150,000 acres of desert lands along the lower portion of Shoshone River, the lake will be utilized as a pleasure resort and the ambitious residents of Cody are already planning to make it one of the great pleasure resorts of the West. Summer cottages along the banks of the lake will be erected by many, and hotels, boats, and bath houses will attract summer tourists who may desire a pleasant place to spend all or a portion of their summer. The water of the lake will be stocked with the rainbow trout and the black bass in such numbers as to prove very enticing to anglers in a few years. The lake will be large enough to allow excellent boating.

The river banks below the mouth of the canyon show unmistakable evidence of ancient geyser activity in that section, and here are found the wonderful mineral and sulphur springs, the curative values of which were known to the Indians years ago. They used to gather here to bath in the waters and renew their youth and strength; they called the stream the "Smelling Water," and the early white man of that section gave the name "Stinking Water" to the river which we now know as the Shoshone.

The dam in the canyon has been completed and this, the highest masonry dam in the world, is ready to hold back the flood waters which will come down the stream in the spring. The dam which is 328 feet above bed rock and 246 feet above the bed of the stream is only 200 feet wide on top. The dam could easily be carried much higher, as its top is nowhere near the top of the canyon, but the low banks on the east side of the South Fork of the Shoshone renders a higher dam impracticable.

WATER SUPPLY FOR THE SHOSHONE PROJECT.

By D. W. Cole, Constructing Engineer.

The Shoshone River has its source in the massive Absarokee Range of the Rocky Mountains. The entire watershed is a very rugged country, elevated from 6,000 to 12,000 feet above the sea. Practically the entire run-off of the stream is derived from the heavy snows deposited in the high mountains. The precipitation from September until June is almost wholly in the form of snow. Rain comes in showers, sometimes very heavy during the months of July and August, but these have very little effect upon the flow of the main stream.

The floods in the river occur in June and July as a result of melting of the snow in the deep ravines of the mountains.

The country is very sparsely inhabited, and the few persons living in this district are quartered along the streams in the lower portions of the watershed. Hence, any stations for measurement of precipitation, located at the usual habitations of men, would give little information as to the actual amounts in the high mountains. To get a correct idea of the precipitation from which the greater portion of the stream yield is derived, the gages would need to be located on the higher ridges of the mountains, where only hunters penetrate at infrequent intervals, and which are practically inaccessible in winter. Unusual and special effort would be required, and expensive methods would be necessary to maintain gage stations where they would throw much light on the subject of precipitation in the mountains.

The general subject of collection of precipitation data in the high mountain areas, where snow is a thing to be measured, is one of world-wide interest, which it appears has not been satisfactorily handled heretofore.